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Bus system cable - SAC-5P-M12MSB/10,0-900

1507081

https://www.phoenixcontact.com/gb/products/1507081

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Bus system cable, INTERBUS (16 Mbps), 5-position, PUR halogen-free, may green RAL 6017, shielded, Plug straight M12, coding: B, on free cable end, cable length: 10 m

Commercial Data

Item number	1507081
Packing unit	1 pc
Minimum order quantity	1 pc
Sales Key	BF1CKB
Product Key	BF1CKB
Catalog Page	Page 428 (C-2-2019)
GTIN	4017918899950
Weight per Piece (including packing)	717 g
Weight per Piece (excluding packing)	707.4 g
Customs tariff number	85444290
Country of origin	PL

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Technical Data

Notes

General	Further products with variable cable type and variable cable length can be found in the accessories section

Product properties

Product type	Data cable preassembled
Number of positions	5
Application	Standard
No. of cable outlets	1
Shielded	yes
Coding	B - inverse

Insulation characteristics

Overvoltage category	II
Degree of pollution	3

Interfaces

Bus system	INTERBUS
Signal type/category	INTERBUS, 16 Mbps

LED signaling

Status display	No
Status display present	No

Electrical properties

Contact resistance	≤ 5 mΩ
Insulation resistance	≥ 100 MΩ
Nominal voltage U_N	48 V AC
	60 V DC
Nominal current I_N	4 A
Transmission medium	Copper

Material specifications

Flammability rating according to UL 94	V0
Material of grip body	TPU, hardly inflammable, self-extinguishing
Contact material	CuSn
Contact surface material	Ni/Au
Contact carrier material	PA 6.6
Cable gland material	Zinc die-cast, nickel-plated

Connection data

Pin assignment

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Contact | Color (signal designation) | Contact (optional)	1 (Plug) = YE (DO)
	2 (Plug) = GN (DO)
	3 (Plug) = GY (DI)
	4 (Plug) = PK (DI)
	5 (Plug) = BN (GND)

Connector

Insertion/withdrawal cycles	≥ 100

Header 1

Head design	Plug
Head cable outlet	straight
Head thread type	M12
Coding	B

Head 2

Head design	free cable end

Cable / line

Cable length	10 m
Cable weight	70 kg/km
Number of positions	6
Shielded	yes
Cable type	INTERBUS [900]
Signal speed	0.66 c
Conductor structure signal line	32x 0.10 mm
AWG signal line	24
Conductor cross section	3x 2x 0.22 mm²
External cable diameter	8 mm
Outer sheath, material	PUR
External sheath, color	may green RAL 6017
Conductor material	Bare Cu litz wires
Material wire insulation	PE
Single wire, color	Green-yellow, white-brown, gray-pink
Twisted pairs	2 cores to the pair
Overall twist	3 pairs to the core
Insulation resistance	≥ 5 GΩ*km
Coupling resistance	< 250.00 mΩ/m (at 30 MHz)
Loop resistance	≤ 159.80 Ω/km
Wave impedance	120 Ω ±20 % (at 64 kHz)
	100 Ω ±15 % (with 1 MHz)
Cable capacity	≤ 60 nF/km (At 800 Hz)
Nominal voltage, cable	250 V (Peak value, not for high-power applications)
Test voltage Core/Core	1500 V_{rms}
Test voltage Core/Shield	1000 V_{rms}

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Minimum bending radius, fixed installation	7.5 x D
Minimum bending radius, flexible installation	15 x D
Max. bending cycles	5000000
Near end crosstalk attenuation (NEXT)	≥ 61 dB (at 772 kHz)
	≥ 59 dB (with 1 MHz)
	≥ 55 dB (at 2 MHz)
	≥ 50 dB (at 4 MHz)
	≥ 46 dB (at 8 MHz)
	≥ 44 dB (at 10 MHz)
	≥ 41 dB (at 16 MHz)
	≥ 40 dB (at 20 MHz)
Shield attenuation	≤ 15 dB/km (at 256 kHz)
	≤ 24 dB/km (at 772 kHz)
	≤ 27 dB/km (with 1 MHz)
	≤ 52 dB/km (at 4 MHz)
	≤ 84 dB/km (at 10 MHz)
	≤ 112 dB/km (at 16 MHz)
	≤ 119 dB/km (at 20 MHz)
Flame resistance	according to VDE 0472, Part 4, test type B
	according to IEC 60332-1
Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation)
	-30 °C ... 70 °C (Cable, flexible installation)

Cable structure

Cable type	INTERBUS
Signal type/category	INTERBUS, 16 Mbps
Outer sheath, material	PUR
External sheath, color	green RAL 6017

Ambient conditions

Degree of protection	IP65
	IP67
Ambient temperature (operation)	-25 °C ... 90 °C (Plug / socket)

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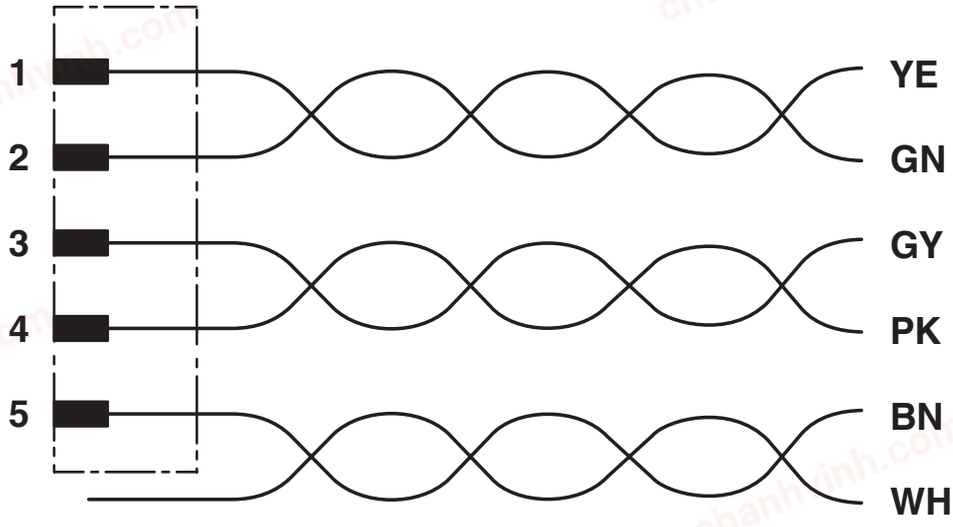
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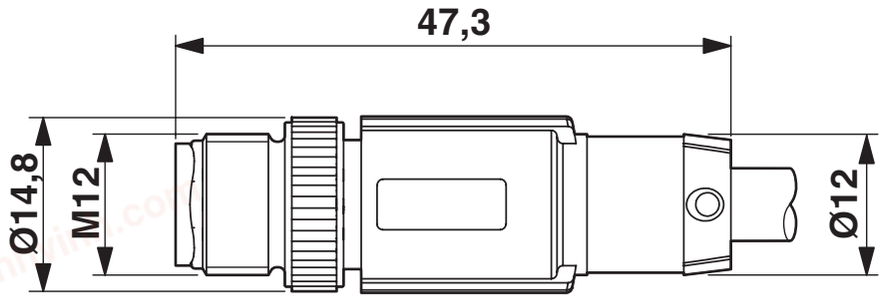
Drawings

Circuit diagram



Contact assignment of the M12 plug

Dimensional drawing



Plug, M12 x 1, straight, shielded

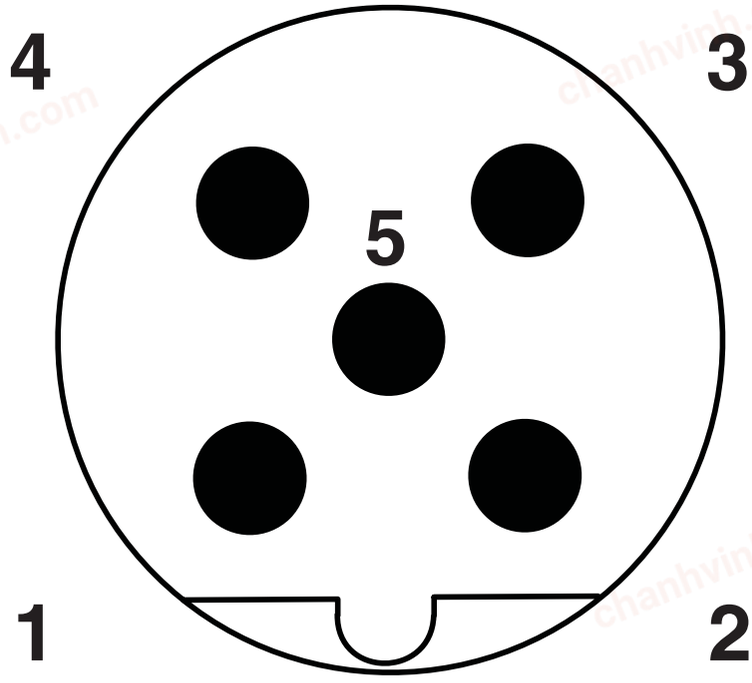
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Schematic diagram



Pin assignment M12 male connector, 5-pos., B-coded, male side

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Approvals

EAC
Approval ID: RU C-DE.BL08.B.00286

EAC
Approval ID: RU D-DE.HB35.B.00387

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Classifications

ECLASS

ECLASS-9.0	27060308
ECLASS-10.0.1	27060308
ECLASS-11.0	27060307

ETIM

ETIM 8.0	EC001855

UNSPSC

UNSPSC 21.0	26121600

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Environmental Product Compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

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Accessories

Bus system cable

Bus system cable - SAC-5P-M12MSB/900/... - 1537983

https://www.phoenixcontact.com/gb/products/1537983



Bus system cable, INTERBUS (16 Mbps), 5-position, PUR halogen-free, may green RAL 6017, shielded, Plug straight M12, coding: B, on free cable end, cable length: Free input (0.2 ... 40.0 m)

Torque screwdriver

Torque screwdriver - TSD 04 SAC - 1208429

https://www.phoenixcontact.com/gb/products/1208429



Torque screwdriver, with preset torque of 0.4 Nm and 4 mm hexagonal drive for M12 connectors

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Bus system cable - SAC-5P-M12MSB/10,0-900

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https://www.phoenixcontact.com/gb/products/1507081

Bus system cable

Bus system cable - SAC-5P-M12FSB/900/... - 1538005

https://www.phoenixcontact.com/gb/products/1538005



Bus system cable, INTERBUS (16 Mbps), 5-position, PUR halogen-free, may green RAL 6017, shielded, free cable end, on Socket straight M12, coding: B, cable length: Free input (0.2 ... 40.0 m)

Torque screwdriver

Torque screwdriver - TSD-M 1,2NM - 1212224

https://www.phoenixcontact.com/gb/products/1212224



Torque screw driver, accuracy as per EN ISO 6789 standard, adjustable from 0.3 - 1.2 Nm

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Bus system cable - SAC-5P-M12MSB/10,0-900

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https://www.phoenixcontact.com/gb/products/1507081

Bus system cable

Bus system cable - SAC-5P-M12MSB-M12FSB/900/... - 1538021

https://www.phoenixcontact.com/gb/products/1538021



Bus system cable, INTERBUS (16 Mbps), 5-position, PUR halogen-free, may green RAL 6017, shielded, Plug straight M12, coding: B, on Socket straight M12, coding: B, cable length: Free input (0.2 ... 40.0 m)

Adapter insert

Adapter insert - TSD-M SAC-BIT ADAPTER - 1212600

https://www.phoenixcontact.com/gb/products/1212600



Adapter bit for TSD-M...torque tools, E6.3-1/4" drive with 4 mm hexagon to accommodate SAC bits

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Bus system cable - SAC-5P-M12MSB/10,0-900

1507081

https://www.phoenixcontact.com/gb/products/1507081

Tool

Tool - SAC BIT M12-D15 - 1208432

https://www.phoenixcontact.com/gb/products/1208432



Nut for assembling sensor/actuator cables with M12 connector and M12 connectors for assembly, with a knurl diameter of 15 mm, for 4 mm hexagonal drive

Sealing cap

Sealing cap - PROT-M12 FS-PA-CHAIN - 1430873

https://www.phoenixcontact.com/gb/products/1430873

M12 sealing cap made of plastic with fixing band, for sensor cables, for free M12 plugs



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Bus system cable - SAC-5P-M12MSB/10,0-900

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Locking clip

Locking clip - SAC-M12-EXCLIP-M - 1558988

https://www.phoenixcontact.com/gb/products/1558988



Locking clip for the pin side of sensor/actuator cables with M12 connector and M12 connectors for assembly, for knurl diameter: 15 mm or for Allen key with a wrench size of 14 mm, prevents the disconnection of plug-in connections without tools

Cable-cutting tool

Cable-cutting tool - CUTFOX 12 - 1212128

https://www.phoenixcontact.com/gb/products/1212128



Cable cutter, for copper and aluminum up to 12 mm diameter (up to 35 mm^2)

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Diagonal cutter

Diagonal cutter - CUTFOX-S VDE - 1212207

https://www.phoenixcontact.com/gb/products/1212207



Diagonal cutter for hard (piano wire) and soft wires, VDE 1000 V AC/1500 V DC tested

Stripping tool

Stripping tool - VS-CABLE-STRIP-VARIO - 1657407

https://www.phoenixcontact.com/gb/products/1657407

Stripping tool, for the multi-level stripping of shielded cables



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https://www.phoenixcontact.com/gb/products/1507081

Diagonal cutter

Diagonal cutter - MICROFOX-SP-1 - 1212487

https://www.phoenixcontact.com/gb/products/1212487



Electronic diagonal cutter, tapered head, without chamfer, with opening spring, non-reflective phosphate-treated surface, punched version

Stripping tool

Stripping tool - WIREFOX 4 - 1212156

https://www.phoenixcontact.com/gb/products/1212156



Stripping tool, for cables and conductors (especially for rubber and silicone insulations) from 0.1 - 4 mm^2, self-adjusting, stripping length of up to 18 mm, cutting capacity of up to 10 mm^2 stranded/1.5 mm^2 solid, replaceable stripping blade

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https://www.phoenixcontact.com/gb/products/1507081

Stripping tool

Stripping tool - WIREFOX-E 4 - 1212704

https://www.phoenixcontact.com/gb/products/1212704



Stripping tool, for cables and conductors (especially for rubber and silicone insulations) from 0.1 - 4 mm^2, self-adjusting, stripping length of up to 18 mm, cutting capacity of up to 10 mm^2 stranded/1.5 mm^2 solid, replaceable stripping blade

Stripping tool

Stripping tool - WIREFOX 10 - 1212150

https://www.phoenixcontact.com/gb/products/1212150



Stripping tool, for cables and conductors from 0.02 - 10 mm^2, self-adjusting, stripping length of up to 18 mm, cutting capacity of up to 10 mm^2 stranded/1.5 mm^2 solid, replaceable stripping blade

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Protective hose adapter

Protective hose adapter - WP-CTA POM 13,0 BK - 1422884

https://www.phoenixcontact.com/gb/products/1422884



Protective hose adapter, for corrugated hoses with a nominal size of 13 (10 x 13), corrugated in parallel

Protective hose

Protective hose - WP-PA HF 13,0 BK - 3240681

https://www.phoenixcontact.com/gb/products/3240681



Protective hose, material: PA 6, filament: without, UV-resistant: yes, flexible, degree of protection: IP68, color: black, inflammability class in acc. with UL 94: V0, inner diameter: 10 mm, Total length: 50 m

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Bus system cable - SAC-5P-M12MSB/10,0-900

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https://www.phoenixcontact.com/gb/products/1507081

Protective hose

Protective hose - WP-PA HF-HB 13,0 BK - 3240839

https://www.phoenixcontact.com/gb/products/3240839



Protective hose, material: PA 6, filament: without, UV-resistant: yes, flexible, degree of protection: IP68, color: black, inflammability class in acc. with UL 94: HB, inner diameter: 10 mm, Total length: 50 m

Data connector

Data connector - SACC-M12FSB-5PL SH IB - 1424676

https://www.phoenixcontact.com/gb/products/1424676



Data connector, INTERBUS (500 kbps), 5-position, shielded, Socket straight M12, Coding: B, Push-lock spring connection, knurl material: Zinc die-cast, nickel-plated, external cable diameter 4 mm ... 8 mm

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Bus system cable - SAC-5P-M12MSB/10,0-900

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Data connector

Data connector - SACC-M12MSB-5PL SH IB - 1424674

https://www.phoenixcontact.com/gb/products/1424674



Data connector, INTERBUS (500 kbps), 5-position, shielded, Plug straight M12, Coding: B, Push-lock spring connection, knurl material: Zinc die-cast, nickel-plated, external cable diameter 4 mm ... 8 mm

Data connector

Data connector - SACC-M12FRB-5PL SH IB - 1424677

https://www.phoenixcontact.com/gb/products/1424677



Data connector, INTERBUS (500 kbps), 5-position, shielded, Socket angled M12, Coding: B, Push-lock spring connection, knurl material: Zinc die-cast, nickel-plated, external cable diameter 4 mm ... 8 mm

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Bus system cable - SAC-5P-M12MSB/10,0-900

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Data connector

Data connector - SACC-M12MRB-5PL SH IB - 1424675

https://www.phoenixcontact.com/gb/products/1424675



Data connector, INTERBUS (500 kbps), 5-position, shielded, Plug angled M12, Coding: B, Push-lock spring connection, knurl material: Zinc die-cast, nickel-plated, external cable diameter 4 mm ... 8 mm

Data connector

Data connector - SACC-M12FSB-5CON-PG9 SH AU - 1507777

https://www.phoenixcontact.com/gb/products/1507777



Data connector, PROFIBUS, INTERBUS, 5-position, shielded, Socket straight M12, Coding: B, Screw connection, knurl material: Zinc die-cast, nickel-plated, cable gland Pg9, external cable diameter 6.5 mm ... 8.5 mm

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Bus system cable - SAC-5P-M12MSB/10,0-900

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Data connector

Data connector - SACC-M12MSB-5CON-PG9 SH AU - 1507764

https://www.phoenixcontact.com/gb/products/1507764



Data connector, PROFIBUS, INTERBUS, 5-position, shielded, Plug straight M12, Coding: B, Screw connection, knurl material: Zinc die-cast, nickel-plated, cable gland Pg9, external cable diameter 6.5 mm ... 8.5 mm

Data connector

Data connector - SACC-M12FRB-5CON-PG 9-SH - 1430420

https://www.phoenixcontact.com/gb/products/1430420



Data connector, PROFIBUS, INTERBUS, 5-position, shielded, Socket angled M12, Coding: B, Screw connection, knurl material: Zinc die-cast, nickel-plated, cable gland Pg9, external cable diameter 6 mm ... 8 mm

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Data connector

Data connector - SACC-M12MRB-5CON-PG 9-SH - 1430417

https://www.phoenixcontact.com/gb/products/1430417



Data connector, PROFIBUS, INTERBUS, 5-position, shielded, Plug angled M12, Coding: B, Screw connection, knurl material: Zinc die-cast, nickel-plated, cable gland Pg9, external cable diameter 6 mm ... 8 mm

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PHOENIX CONTACT Ltd
Halesfield 13, Telford
Shropshire, TF7 4PG
01952 681700
info@phoenixcontact.co.uk